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ABSTRACT

This document presents a report on teenage pregnancy. A letter to Senator John Chafee, who requested information on teenage pregnancy, gives major findings about the extent of the problem and describes the four procedures used to obtain the information: (1) an analysis of main features of two Congressional bills to amend the Aid to Families with Dependent Children program; (2) a review of available stastistics on the extent of teenage pregnancy; (3) an examination of characteristics of federal and nonfederal programs; and (4) a review of evaluation studies on the effectiveness of prior programs for assisting pregnant and parenting teenagers, as well as teenagers at risk of becoming pregnant. The briefing report provides information on the extent of teenage pregnancy, existing programs which address teenage pregnancy, the effectiveness of these programs, and how to make future legislation maximally effective. The appendices contain information on the objectives, scope, and methodology of the review; a six-page bibliography; and tables on program funds, results, and services. Several figures are included. (NB)

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United States General Accounting Office

GAO

Briefing Report to
the Honorable John H. Chafee
United States Senate

July 1986

TEENAGE PREGNANCY

500,000 Births a Year but Few Tested Programs

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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

PROGRAM EVALUATION
AND
METHODOLOGY DIVISION

July 21, 1986

B-223573

The Honorable John H. Chafee
United States Senate

Dear Senator Chafee:

In your January 9, 1986, letter, you asked us four questions on teenage pregnancy. These questions asked for information on the extent of teenage pregnancy, programs already in place, the effectiveness of these programs, and how to make future legislation maximally effective.

Our major findings are that the problem is particularly severe and growing for unmarried mothers under 18 years old, that only one federal demonstration program is focused exclusively on the problem, and that the evidence from demonstration programs, while sparse, suggests two types of future legislation. If expansion of services is essential, the first type of legislation would be flexible but targeted and would include both prevention and postpregnancy services. The second would involve well-evaluated demonstrations of prevention and postpregnancy services that would be targeted, flexible, and innovative.

To obtain this information, we conducted an evaluation planning review in which we used four procedures. We analyzed the main features of two congressional bills, reviewed available statistics on the extent of teenage pregnancy, examined the characteristics of federal and nonfederal programs, and reviewed evaluation studies on the effectiveness of prior programs for assisting pregnant and parenting teenagers, as well as teenagers at risk of becoming pregnant. We compared the evidence we found to the features of the proposed legislation. (A description of our objectives, scope, and methodology is in appendix I.)

We found that the extent of teenage pregnancy has increased during the past decade but that birthrates for teenagers declined during the past three decades. Despite the overall decline, the birthrate for unmarried teenagers actually increased. Thus, of the 500,000 births to women younger than 20 years old in 1983, 270,000 were to unmarried teenagers, young women at particularly high risk of the negative consequences associated with teenage

childbearing. Furthermore, the birthrate for teenagers 17 years old or younger did not decline as rapidly as the birthrate for teenagers 18 and 19 years old.

The programs responding to concern about teenage pregnancy have tried two general approaches. The first represents efforts to prevent teenage pregnancy. The second provides services to teenagers who become pregnant and to parenting teenagers. Within these two general approaches, we identified somewhat distinct strategies that differ in the location within which services are provided, the types of services that are provided, and who they are provided to.

Our analysis of two key bills--your proposal in S. 938 and Senator Daniel P. Moynihan's proposal in S. 1194 to amend the Aid to Families With Dependent Children (AFDC) program--reveals several differences in the approaches that are offered. Your proposal is targeted at a specific group (poor teenagers younger than 18), it is flexible with respect to the comprehensive services that could be provided to pregnant teenagers, and its administrative structure is relatively straightforward. Senator Moynihan's proposal is targeted more broadly (including teenagers eligible for AFDC and selected young women with children younger than 6), it is prescriptive (in the sense that a specific set of services is to be provided), it involves prevention and postpregnancy services, and it is administratively complex because it entails extensive coordination across five federal programs.

Many federal programs are currently relevant in some measure to pregnant or parenting teenagers. However, only one, the Adolescent Family Life Program (AFL), is uniquely targeted to preventing teenage pregnancy and to providing services to pregnant and parenting teenagers and their families. Nine other federal programs may provide services to these groups; three make teenagers a primary target group. Unfortunately, there are few available data on how much money these federal programs spend on pregnant and parenting teenagers.

With the two legislative proposals in mind, we asked, "What is known about the effectiveness of prior projects on teenage pregnancy?" Although common sense, logic, and prior research can provide useful information, we focused our review on evaluations of projects similar to those proposed in the two bills. Evaluations of the prevention-only projects revealed some positive results, but across the studies there were no consistent or large effects on fertility or contraception. For the postpregnancy projects, the evidence shows some positive short-term effects on repeat pregnancy, child health status, and the return to high school. However, flaws in the research designs limit the utility of this evidence for structuring new legislative proposals.

Specifically, few of these studies had credible research designs. Even for those whose designs were credible, the ability to generalize from them to typical service settings is uncertain and the long-term benefits of these services is unknown, because only one assessment of outcomes extended beyond 24 months.

However, these studies did reveal implementation problems that should be anticipated when new programs are developed. For example, the lack of public support and barriers to client participation were identified as important obstacles to program operations. Media campaigns and other special attention to these factors during a new program's development could improve its chances for success.

With regard to your question on the implications of our review for future legislation, two tactics seem feasible. First, if expanding the provision of services is essential, it would seem justifiable to target services to the teenagers who have the highest risk of experiencing negative consequences--that is, young and unmarried teenagers. In addition, flexibility is warranted, since we uncovered no convincing evidence to support the notion that the most comprehensive services were more effective than the least comprehensive. Program implementation and coordination problems argue for an administratively simple program structure.

Second, our review points to a role for the federal government that, as an alternative to installing a program that expands the provision of services, would feature the promotion of innovations, sound comprehensive evaluation of these innovations, and the dissemination of programs (or their components) that work. The rationale for this is twofold. First, we identified numerous state and local programs that seemed promising, but the evidence for their effectiveness was frequently either lacking or ambiguous. While there is a large eligible population, we do not know whether the services on which these projects depend are adequately available in many localities. Consequently, we can neither say how much a full-scale program might cost nor argue for installing it before the evidence is in. Second, many innovative ideas are being tried across the nation, and plausible approaches are emerging from research on questions about, for example, the sexual decision-making among unmarried teenagers. Identifying and testing these ideas, with the thought of disseminating the promising practices to state and local agencies, could be a cost-effective way for the federal government to help address public concern about teenage pregnancy.

Officials of the Office of Adolescent Pregnancy Programs of the U.S. Department of Health and Human Services reviewed a previous draft of this report, and their comments were considered in writing the final report. Since we relied upon summaries of

AFL interim findings, agency officials offered us access to the original source material. We were unable to review the material in time to include it in this report. Officials told us, however, that we had accurately portrayed the state of the art in the evaluation of teenage pregnancy programs.

Copies of this report will be made available to persons who request them. If you have any questions or would like additional information, please call me (202-275-1854) or Dr. Lois-ellin Datta (202-275-1370).

Sincerely,

Eleanor Chelimsky
Director

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ABBREVIATIONS

AFDC	Aid to Families with Dependent Children
AFL	Adolescent Family Life Program
CWEP	Community Work Experience Program
DOL	U.S. Department of Labor
HHS	U.S. Department of Health and Human Services
WIC	Special Supplemental Food Program for Women, Infants, and Children
WIN	Work Incentive Program

BRIEFING REPORT

BACKGROUND

Senator John Chafee asked us to assess the wide range of current programs and legislative proposals to address the public concern about teenage pregnancy among the poor. We selected for examination two legislative proposals on the grounds of their special interest, as well as to maximize the diversity of approaches to be considered in our review. Senator Chafee's proposal, S. 938, and Senator Moynihan's proposal, S. 1194 (section 6), both describe programs of comprehensive services that would be provided exclusively to pregnant and parenting young women. The bills differ on the scope of services that would be provided, the types of clients who would be served, and the administrative and financing arrangements that would be required. Senator Moynihan's bill also differs from Senator Chafee's in that it proposes a pregnancy-prevention program.

We organized our examination of these proposals around four questions:

1. What is known about the extent of teenage pregnancy?
2. What solutions have been tried?
3. What is known about the effectiveness of these solutions?
4. What implications does this knowledge have for the structuring of new legislation?

Focusing on the main features of the two bills, we

--examined information on the extent of the teenage pregnancy problem that is relevant to the target populations specified in the two bills,

--reviewed the characteristics of existing federal programs providing relevant services, and

--examined published studies on the effectiveness of programs for preventing teenage pregnancy and for providing related services.

At least four sources of information could be drawn upon in assessing whether a proposed program might have the results intended: common sense, logic, plausible theory based on research, and evaluations of the effectiveness of prior interventions. We focused our review on the source we thought would provide the most directly relevant information: program evaluations.

The 70 documents we reviewed supplied information about a wide range of program services and administrative and financing

arrangements. The studies also described the difficulties of implementing programs. However, less than half of the evaluations included comparison data, and few used research designs adequate for evaluating the effectiveness of a project.

In appendix I, we describe our methodology--the evaluation planning review--in detail. Appendix II is a bibliography of general references, including the evaluation studies we reviewed. (A bibliography of all the documents we reviewed and brief descriptions of the specific studies we employed in our analyses are available on request.) Appendix III contains descriptive tables of the evaluation studies we reviewed.

WHAT IS KNOWN ABOUT THE EXTENT OF TEENAGE PREGNANCY?

In 1983, there were 500,000 live births and more than 1 million pregnancies in the United States to women younger than 20. While teenage pregnancy rates increased during the past decade, teenage birthrates, overall, declined. Although reliable information is not available on the extent of teenage pregnancy and births among the poor, it is known that birthrates are increasing for unmarried teenagers and have barely declined for very young teenagers--two groups at particular risk of negative health, educational, and social outcomes. Additionally, the number of births to unmarried teenagers varies dramatically by state of residence.

Teenage pregnancy rates have increased while birthrates have declined overall

Combining data from surveys of health care providers with federal natality statistics to include births, abortions, and miscarriages, the Alan Guttmacher Institute has estimated that teenage pregnancy rates have increased (see figure 1).

--In 1972 (the first year for which data are available), about 95 in every 1,000 women 15 to 19 years old became pregnant;

--in 1981 (the year of the most recent data), the rate was estimated at about 111 in 1,000.

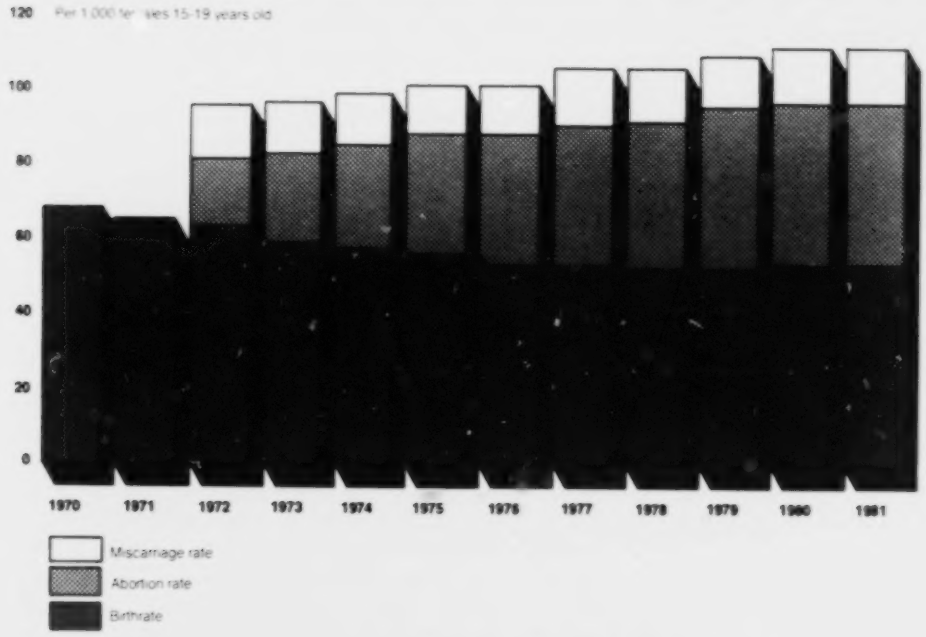
Teenage birthrates, however, have declined, mirroring the decline in birthrates for all women.

--In 1952, the overall birthrate was 86 in 1,000 among women 15 to 19 years old;

--in 1972, the rate was 62 in 1,000; and

--in 1982, the rate was 53 in 1,000. (In 1983, the year of the most recent data, the rate was 52 in 1,000.)

Figure 1: Adolescent Pregnancy Rates and Outcomes in the United States in 1970-81 [a]



[a] The pregnancy rate is the sum of the birthrate, abortion rate, and miscarriage rate. Data on pregnancy, abortion, and miscarriage are not available before 1972, because abortion was not legal in many areas before 1972.

Source: Adapted from U.S. House of Representatives, Select Committee on Children, Youth, and Families, *Teenage Pregnancy: What Is Being Done? A State-by-State Look* (Washington, D.C.: U.S. Government Printing Office, January 1986), p. 20, fig. 1. The data on pregnancy and abortion are unpublished data from the Alan Guttmacher Institute.

Increased abortion rates for teenagers are believed to account for most of the differences in the pregnancy and birth trends.

Limited information is available on the extent of teenage pregnancy among the poor

Compared to women who delay their childbearing, women who bear children before the age of 18 generally experience more birth complications and show deficits in educational attainment and income. Their children have been found to have a higher risk of congenital defects, childhood disease, and developmental lags than children of mothers in their twenties. Teenage childbearing in the context of poverty is believed to increase the probability of these negative consequences and to require additional health and social services to avert these consequences.

To estimate the extent of teenage pregnancy among the poor--and, thus, the need for additional services--we investigated nine government and private data bases on fertility, income, and

teenagers. We found that no reliable estimates of poor pregnant and parenting teenagers are readily available, for a variety of reasons:

--mothers' income information is not included in birth records,

--household income information is not accurately reported in surveys of teenagers,

--government fertility surveys have excluded teenagers younger than 18 from their samples, and

--the standard national survey of household income reports the number of families with income below the poverty level but excludes from its count families headed by teenagers (or others) that reside in larger households.

Therefore, to identify the populations most in need of services, we examined the available data on other characteristics of teenage births that research has identified as being associated with negative outcomes for teenage pregnancy: age, marital status, and education.

Increasing proportions of pregnant and parenting teenagers are at risk of negative outcomes

Although birthrates have declined for teenagers as a whole, they have not declined for some who are at particularly high risk of the negative consequences of childbearing.

--The rate for older teenagers (18 to 19) decreased dramatically after 1970, but the rate for younger teenagers (15 to 17) did not decrease as much.[1]

--The birthrate for very young teenagers (younger than 15) barely declined at all; 1.2 in 1,000 gave birth in 1972, and in 1982, the rate was 1.1 in 1,000.

--The rate for unmarried teenagers (15 to 19) rose from 23 in 1,000 in 1972 to 29 in 1,000 in 1982, resulting in 270,000 births (30 in 1,000) in 1983.

--It appears that not only are younger mothers less likely to have married or completed high school by the time of a

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[1]In 1983, the year of the most recent data, the birthrate was 78 in 1,000 women 18-19 years old, 32 in 1,000 women 15-17 years old, and 1.1 in 1,000 younger than 15.

birth but that also the younger the mother, the less likely she is to have completed school by the time she reaches her twenties (see table 1).

Table 1

1983 High School Status
of Women Ages 20-26 Who Were Teenage Mothers

Age at first birth	Dropout	Received diploma	Received general equivalency diploma
Younger than 15	70%	23%	6%
15	55	24	21
16	51	28	21
17	47	38	15
18	38	52	10
19	23	68	9
At least 20	10	86	4

[a]Percentages do not add to 100 because of rounding.

Source: F. L. Mott and W. Marsiglio, "Early Childbearing and Completion of High School," Family Planning Perspectives, 17:5 (1985), 236, table 3.

The numbers of births to unmarried teenagers vary by state

We analyzed unpublished National Center for Health Statistics data by state on births in 1983 to unmarried teenagers. As table 2 on the next page shows, the prevalence of such births differs dramatically according to state of residence.

--Seven states had 10,000 or more births to unmarried teenagers: California, Florida, Illinois, New York, Ohio, Pennsylvania, and Texas.

--Eleven states had fewer than 1,000 such births: Arkansas, Delaware, Idaho, Montana, Nevada, New Hampshire, North Dakota, Rhode Island, South Dakota, Vermont, and Wyoming.

--About 80,000 babies were born to unmarried teenagers in the 13 states and the District of Columbia, in which the last decennial census showed that nearly 15 percent or more of the population earned incomes below the poverty level: Alabama, Arkansas, the District of Columbia, Georgia, Kentucky, Louisiana, Mississippi, New Mexico, North Carolina, South Carolina, South Dakota, Tennessee, Texas, and West Virginia.

Table 2

Number of Births to Unmarried Teenagers in 1983 by Age and Percentage of Persons in Poverty by State

State	19 or younger	17 or younger	Younger than 15	Poverty rate[a]
Alabama	6,100	3,036	243	17.9
Alaska	610	270	11	10.1
Arizona	4,391	2,014	95	12.4
Arkansas	3,475	1,768	163	18.7
California	28,841	12,699	750	11.3
Colorado	3,012	1,376	76	10.2
Connecticut	2,738	1,192	90	8.7
Delaware	995	470	47	11.9
District of Columbia	1,562	707	48	18.9
Florida	13,372	6,443	592	13.0
Georgia	8,887	4,481	428	16.4
Hawaii	1,197	452	14	10.0
Idaho	732	336	18	12.7
Illinois	16,103	7,565	509	11.5
Indiana	6,077	2,896	179	9.8
Iowa	2,096	947	27	9.4
Kansas	2,125	968	45	10.2
Kentucky	3,724	1,770	128	18.4
Louisiana	8,462	4,111	333	18.9
Maine	4,427	1,860	83	9.8
Maryland	6,292	2,741	196	9.9
Massachusetts	1,032	446	15	12.9
Michigan	8,849	4,252	296	11.1
Minnesota	3,074	1,245	50	9.3
Mississippi	6,002	3,089	321	24.5
Missouri	5,886	2,711	158	12.4
Montana	770	316	11	12.4
Nebraska	1,324	566	27	10.4
Nevada	781	393	32	8.5
New Hampshire	601	245	13	8.7
New Jersey	7,985	3,693	258	9.7
New Mexico	2,394	1,073	71	17.4
New York	19,349	8,518	497	13.7
North Carolina	7,460	3,674	284	14.6
North Dakota	539	222	7	12.8
Ohio	12,088	5,537	362	10.5
Oklahoma	3,593	1,727	127	13.3
Oregon	2,246	994	47	11.3
Pennsylvania	11,774	5,302	341	10.5
Rhode Island	856	381	18	10.3
South Carolina	5,529	2,698	250	15.9
South Dakota	736	295	10	16.1
Tennessee	5,735	2,854	250	17.0
Texas	18,061	9,040	804	14.8
Utah	1,152	532	22	10.7
Vermont	463	187	8	11.4
Virginia	6,032	2,688	216	11.5
Washington	3,806	1,679	87	10.2
West Virginia	1,760	860	51	14.5
Wisconsin	4,559	1,944	96	8.5
Wyoming	422	178	12	8.0
Total	270,076	125,441	8,816	12.5

[a]Percentage of all persons whose incomes were below the poverty level in 1979 (for those for whom poverty status had been determined).

CURRENT APPROACHES AND PROPOSALS FOR ADDRESSING TEENAGE PREGNANCY

Communities across the nation currently offer a broad range of programs addressing teenage pregnancy. The programs generally attempt either to prevent unintended teenage pregnancy or to provide services to assist pregnant teenagers and teenage mothers in preventing some of the negative consequences for mother and child. The federal role appears limited at present to a single demonstration program aimed solely at these activities and nine other grant programs that provide services relevant to teenage pregnancy for the general population. The legislative proposals by Senator Chafee and Senator Moynihan would create new grant programs to expand services targeted exclusively to pregnant and parenting young women.

Existing programs describe a wide variety of approaches

Reviews of the program literature, which include surveys of state and local government agencies, have uncovered a wide variety of approaches to preventing pregnancy and providing assistance to teenagers who are pregnant or mothers. Although some local sponsors provide both prevention and assistance services, we have separated these two program types, for convenience. Projects frequently resemble hybrids. We found the five types of prevention programs and five types of service programs that we list in table 3 below and table 4 on the next page.

Table 3

Services Provided in Five Reported Types of Pregnancy Prevention Programs

Program type	Typically included	Possibly included
Sexuality education	Class instruction in puberty and reproduction	Discussion of family life, sex roles, interpersonal relationships, or family planning
Interpersonal values discussion	Outreach workshops and seminars on peer pressure, interpersonal relationships, and family communication	Assertiveness training, education for self-esteem, or ongoing peer support groups
Parents as educators programs	Outreach workshops and seminars on adolescent development, peer pressure, and family communication	Sexuality education materials provided to teenagers
Family planning clinics	Physical exams, contraceptive information and supplies, and pregnancy testing and counseling	Community education and outreach or special education and counseling for teenagers or their parents
Comprehensive teenage health clinics	Routine health care, physical exams, health education, and counseling	Substance abuse programs, contraceptive services, or prenatal health care

Table 4

Services Provided in Five Reported Types of Postpregnancy Programs

Program type	Typically included	Possibly included
Perinatal health care and parenting education	Medical exams and care; information on pregnancy, childbirth, and infant health care; and nutritional advice and supplements	Family planning services, information on child growth and development, intensive training in mother-child interaction, or social service referrals
Residential care	Residential care for pregnant teenagers, prenatal care and childbirth education, and individual and group counseling	Arrangements to continue education, parenting education, family planning services, or residential services for teenage mothers and their children
Alternative school programs	Academic instruction (at home or in a separate building) and referrals for perinatal health care and parenting education	Family planning services, group counseling, or special childbirth and parenting classes for students remaining in regular classes
Social services with referrals	Outreach, individual or group counseling, and referrals for health and education services	Life-skills training, preparation for general equivalency diploma, or vocational assistance
Comprehensive services	Perinatal health care and parenting education, arrangements to continue education, group counseling, referral and followup using a case-management system	Vocational assistance, family planning services, child care, or single assignments of staff

The current federal role is limited

The size of the federal government's role in the variety of existing programs is not precisely known but appears limited. While several federal grant programs are relevant to teenage pregnancy programs, information on the number of pregnant and parenting teenagers who are served and on the amount of federal funds spent on this subpopulation is available at the federal level for only one of these programs.

--Only one program serves teenage mothers exclusively--the AFL program. Its fiscal year 1986 appropriation was $15 million, and it funded prevention and service demonstration projects and research on the antecedents and consequences of the problem of teenage pregnancy.

--Three grant programs have pregnant and parenting teenagers as a target group: Family Planning Services (which targets all teenagers); Employment Training Services for the Disadvantaged, under the Job Training Partnership Act (JTPA); and the Special Supplemental Food Program for Women, Infants, and Children (WIC). National information on funds allocated to teenagers through these programs is not maintained.

--Six programs provide services relevant to poor pregnant and parenting teenagers: the maternal and child health block grants and the social services block grants, the program for community health centers, employment services and job training grants (demonstrations under the JTPA), child welfare grants, and community services block grants. National information on funds allocated by these programs to pregnant and parenting teenagers is not maintained.

Although the expenditures of these programs on teenage pregnancy are not known, the federal role appears to be secondary to the local one. A national survey of the 153 largest U.S. cities in 1979-80 asked local health and education department officials about special programs for pregnant teenagers. Of the 127 responding cities, 90 reported that special programs were provided and that most of these received public funds from one or more sources: 67 percent received local funds, 59 percent received state funds, and 47 percent received federal funds. Neither the amount received nor the share of total funds was reported. (See table III.1 in appendix III.)

State and local funds came predominantly from education departments; federal funds came primarily from the block grants for maternal and child health and for social services. Across these government levels, 70 percent of these cities reported that education funds were a source of support for special programs for pregnant teenagers, 33 percent reported health funds, and 12 percent reported welfare or social service funds.

Current proposals to expand services for teenage pregnancy

The legislative proposals we reviewed, 2 among more than 20 current proposals on teenage pregnancy, both provide for new service programs exclusively for pregnant and parenting young women. They differ in flexibility and scope of services, types of clients, and complexity of administrative arrangements.

Senator Chafee's bill, S. 938, proposes a flexible service program that would provide any of a variety of assistance and support services for pregnant teenagers and young mothers. The proposal's objectives are relatively modest: to provide assistance and improve the availability of comprehensive services to these young families (see figure 2 on the next page). Only one outcome is explicitly mentioned: to prevent unintended repeat pregnancies among these young mothers.

In contrast, Senator Moynihan's bill, S. 1194 (section 6), proposes a highly prescriptive program of specific assistance and support services intended to help poor young mothers achieve self-sufficiency and avoid long-term welfare dependence (Program B; see figure 3 on the next page). Several objectives are

Figure 2: Underlying Conceptual Model of S. 938

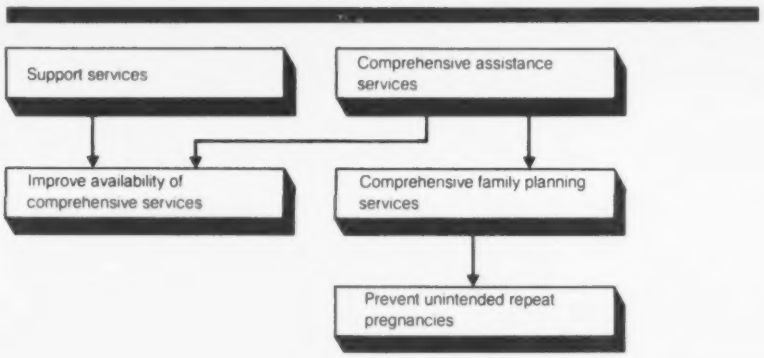
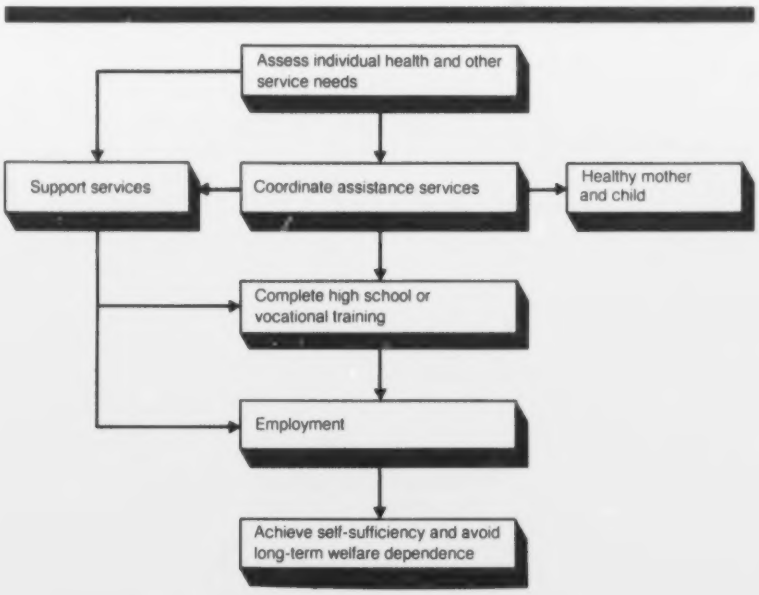


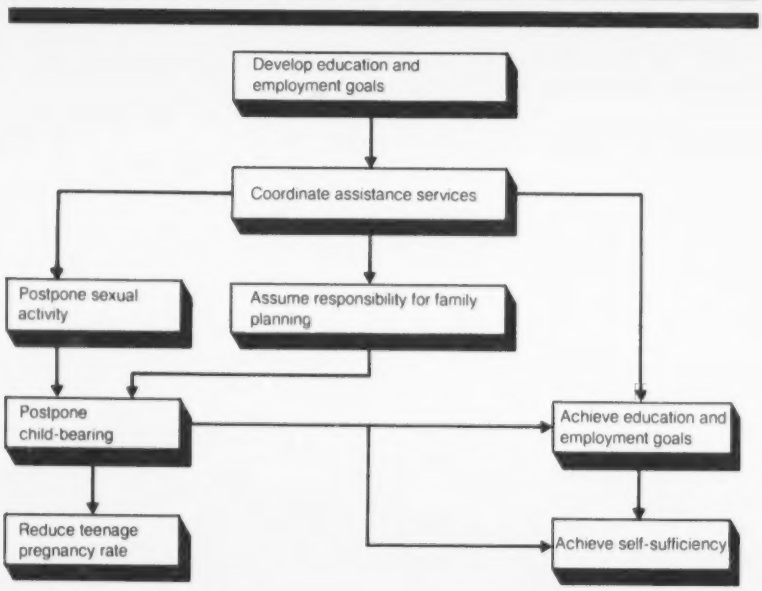
Figure 3: Underlying Conceptual Model of Program B in S. 1194


Assess individual health and other service needs
Support services
Coordinate assistance services
Healthy mother and child
Complete high school or vocational training
Employment
Achieve self-sufficiency and avoid long-term welfare dependence

explicitly mentioned: ensuring the health of mother and infant and enabling the mothers to complete high school and acquire job skills and employment and, thus, economic self-sufficiency. This proposal concentrates on preventing the negative economic consequences typically associated with teenage childbearing by targeting services to young women who have not completed high school and by requiring participation in a program leading to a diploma.

Senator Moynihan's bill also proposes a pregnancy-prevention program that is operationally more flexible than his service program but similarly specific on strategies for meeting its objectives (Program A; see figure 4). This program assumes that a

Figure 4: Underlying Conceptual Model of Program A in S. 1194



lack of alternative education and career plans is a precipitating factor of teenage pregnancy and the economic dependence of teenage mothers. However, specific services would not be required in this program, and two strategies for preventing teenage pregnancy are acknowledged: the postponement of sexual activity and the use of contraception.

These two bills also differ in their administrative and financial arrangements. Senator Chafee's bill proposes new grants to public and private nonprofit agencies and contains the following key features.

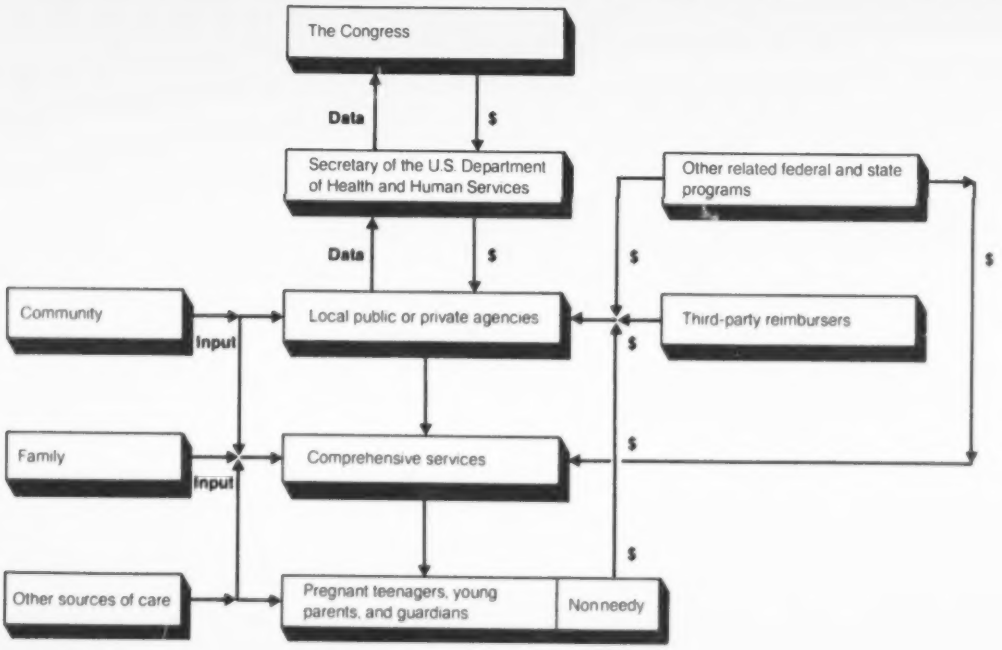
--It is flexible, proposing to provide any of the following services: comprehensive prenatal and postpartum care, well-child care for infants, comprehensive family-planning services, educational and vocational counseling, family-life and parenting education, counseling services, and other services designed to improve the availability of comprehensive assistance services.

--It is targeted to pregnant teenagers and mothers who are younger than 18 at the time of birth.

--The proposed funding level for fiscal year 1986 was $30 million.

--It is, administratively, relatively straightforward (as shown in figure 5 on the next page).

Figure 5: Underlying Operational Model of S. 938



Senator Moynihan's bill proposes new grants to state agencies administering AFDC and has the following key features.

--It is prescriptive, requiring that all the following services be provided: educational and vocational services; the coordination of services, otherwise available, directed at the health needs of mother and child; other services designed to improve the availability of comprehensive assistance services, including child care, transportation, and individual needs assessment and written plans to assist in case management.

--It is broadly targeted. Program A would serve all teenagers eligible for AFDC, and Program B would serve women younger than 25, whether pregnant or parents, who are eligible for AFDC.

--Its proposed funding level for fiscal year 1986 is 2 percent of a state's AFDC payment.

--It is, administratively, relatively complex, requiring federal, state, and local coordination across two executive agencies (the U.S. Department of Health and Human Services, HHS, and the U.S. Department of Labor, DOL) and five programs (the programs under the Job Training Partnership

Act and the maternal and child health block grants, social services block grants, and the family planning programs, together with the Community Work Experience and the Work Incentive programs, CWEP and WIN). (See figure 6 below and figure 7 on the next page.)

Figure 6: Underlying Operational Model of Program B in S. 1194

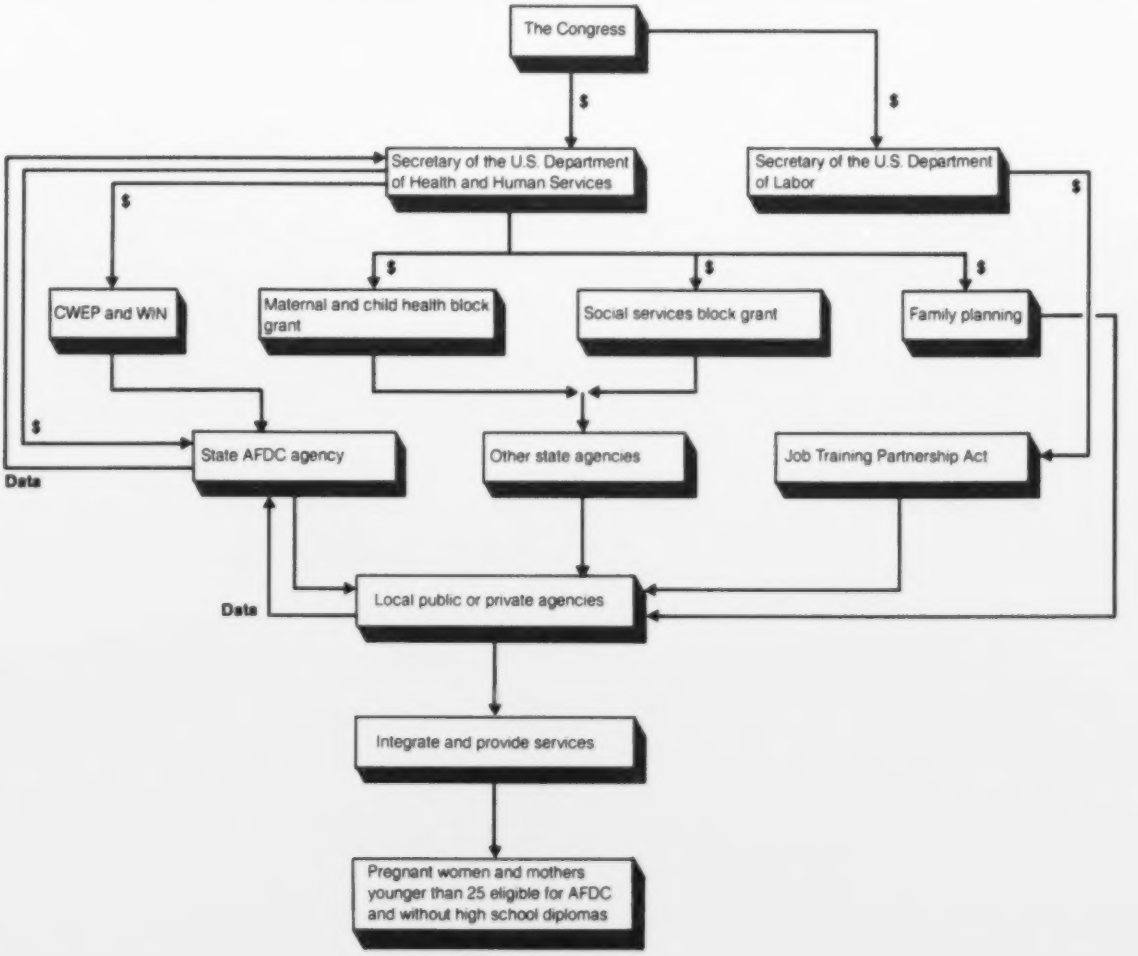
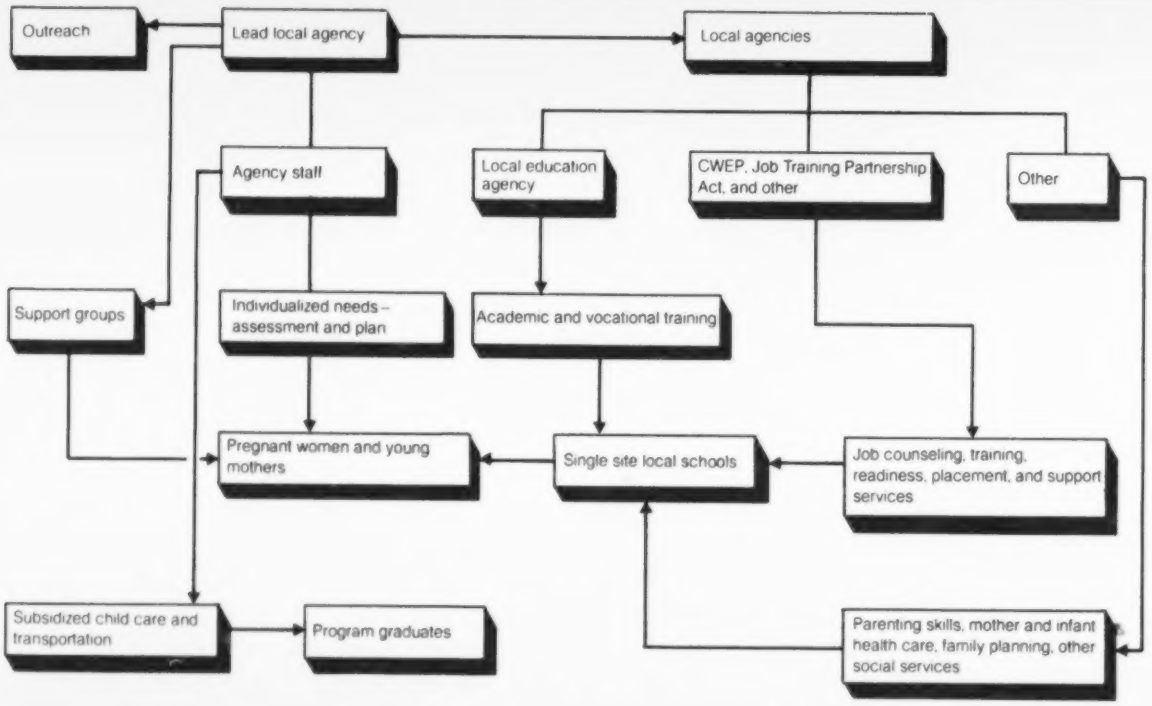


Figure 7: Detail of Underlying Operational Model to Integrate and Provide Services in Program B of S. 1194


Outreach
Lead local agency
Local agencies
Agency staff
Local education agency
CWEP, Job Training Partnership Act, and other
Other
Support groups
Individualized needs--assessment and plan
Academic and vocational training
Pregnant women and young mothers
Single site local schools
Job counseling, training, readiness, placement, and support services
Subsidized child care and transportation
Program graduates
Parenting skills, mother and infant health care, family planning, other social services

THE EFFECTIVENESS OF PRIOR PROGRAMS

Care is needed in interpreting the data we present on the programs' effectiveness. Flaws in most of the study designs leave open the possibility that factors other than program participation influenced the results. Further, the projects reported in the literature may not represent hundreds of projects operating around the nation, many of which do not have published evaluations. Finally, we attempted to identify the most important studies, but some were unavailable during the short period of our review and others may have eluded our search.

The information on the effectiveness of preventing pregnancy is limited

We reviewed all the studies of projects we identified in our search as having pregnancy prevention as an objective, regardless of a project's approach. However, there was only limited information on their effectiveness on conception and fertility. Only 11 of the 24 studies provided comparison data, and only 2 of the 5 interim evaluations of the AFL demonstration projects on the

prevention of pregnancy included comparison data. (The results of these 13 studies are shown in table III.2 in appendix III. The outcome data in which we have the most confidence are highlighted in the table.) Our analysis indicated the following.

--The information on effectiveness is limited, but there were some positive results and no demonstrated failures. For example, an intensive interpersonal-skills program reported positive short-term results in the use of the more reliable, medical methods of contraception. It also appears that increases in teenage enrollment in family planning clinics are associated with reductions, although small, in teenage birthrates.

--While there is no strong evidence that the sex education typically available in schools reduces teenage pregnancy, there is also no evidence that it encourages sexual activity, which some have feared.

--School-based teenage health clinics that include family planning services are frequently associated with reduced teenage birthrates but have not provided conclusive evidence that the programs were responsible for these declines.

--The evidence is insufficient for concluding that some types of services are more effective than others. Two comprehensive health clinics, one school-based and the other hospital-based, appeared equally successful in maintaining the use of reliable contraception. Since we do not know what other services the family planning clinics may have provided to teenagers (such as counseling), we cannot determine which services were responsible for the apparent success.

The information on the effectiveness of comprehensive service programs is limited

Both of the legislative proposals we reviewed intend to increase the availability of comprehensive assistance services to pregnant and parenting teenagers. Because they would authorize numerous services in addition to the traditional perinatal health care and parenting education programs, we focused on comprehensive service projects. We found that these projects provided only limited information on the effectiveness of the explicit objectives of the two target proposals: preventing unintended repeat pregnancies, ensuring the health of mothers and their children, and enabling the mothers to complete high school, acquire job skills, and achieve economic self-sufficiency.

Only 9 of the 37 studies we reviewed provided comparison data with which to evaluate their results. Additionally, 5 of the 9 AFL projects had interim evaluations that included comparison

groups in their designs. (The results reported by these 14 studies are shown in table III.3; those we have most confidence in are highlighted.) Our analysis indicated the following.

--The teenage mothers who were enrolled in service programs providing a range of assistance that included prevention services had lower fertility rates than teenagers in similar communities without such programs. Additionally, the programs reported increased use of birth control in the first year after delivery.

--Positive results were reported in other areas as well, including child health status and mother's school attendance and attainment. Teenagers receiving a broad array of services had no fewer complications and no healthier infants at delivery than teenagers receiving at least prenatal health care, but their children were more likely to receive regular health checkups. Teenage mothers enrolled in multiservice programs were more likely to return to school and, thus, to complete more years of school after delivery than nonparticipants, but there was no strong evidence of improved graduation rates.

However, because of limits in study designs, several cautions are needed in interpreting these findings. First, few studies had controls adequate to exclude plausible explanations (other than comprehensive services) of their results. For example, few "comparison" groups were truly comparable. Therefore, our conclusions regarding fertility and school enrollment are based on only three studies each, our conclusions on mother and infant health on six.

Second, these are short-term results, generally limited to 1 year. No differences in fertility or school enrollment were found between participants and nonparticipants after 2 years. Partly because of the short-term nature of these studies, they provide no evidence on whether the participants were more likely to be economically self-sufficient, a relatively long-term objective for teenage mothers.

Finally, many of these programs were special demonstrations, so that it is difficult to generalize from their results to what might be expected in typical, ongoing service programs.

In summary, numerous programs provide a wide range of services, but the effectiveness of only a few have been tested empirically. Only a few of the projects we reviewed provided the full range of services under the conditions proposed in Senator Moynihan's bill. (In tables III.4 through III.8, we show the services and strategies employed in these projects.)

We found no strong evidence that providing comprehensive services produced results that were more positive than the results

of providing a more restricted set of services. Positive results were found for the more comprehensive as well as the less comprehensive projects.

There were few convincing tests of the value of specific sets of services. Most within-study comparisons did not specify the services received by the comparison groups. Although one AFL project did test the value of peer counselors' services in addition to the full range of services, it did not find positive results consistently across the measured outcomes.

There were too few adequate studies and too much diversity in the sets of service they represented to permit an independent evaluation of the effectiveness of specific service components.

IMPLICATIONS FOR FUTURE LEGISLATION

Our review of the extent of the problem of teenage pregnancy and the effectiveness of efforts to address it can be summarized in terms of what is and is not known. This summary serves, in turn, as the basis for our observations about the feasibility and promise of the two proposals for new programs and the implications for future legislation.

What is known?

The literature provides some information on three topics that help in assessing the two legislative proposals: the size of the eligible populations, potential benefits, and implementation difficulties observed for current programs.

1. Large eligible populations. Recent statistics show that the eligible population is potentially large. About 44 percent of births to unmarried teenagers occur in seven states reporting a high incidence of such births. The data are not sufficient to estimate precisely how many individuals might be eligible under the two bills, but rough estimates can be derived from the data through 1984. We estimate that about 1 million teenagers would be eligible for services under S. 938, or up to 2 million if the fathers are included. For S. 1194, our estimates are as high as 2 million for the prevention program and 600,000 for the services program (see table 5 on the next page). The latter figures are overestimates, because the income data were available only in relation to the federally defined poverty level, which is generally higher than the states' income standards of eligibility for AFDC.

2. Probable benefits but uncertain causes. The results of several projects appear promising, if not conclusive. Family planning and comprehensive health clinics, as well as intensive interpersonal-skills training, have reportedly affected either the short-term use of contraceptives or fertility. The comprehensive and the more limited programs for pregnant teenagers and teenage

Table 5

Estimated Populations of Programs Proposed in S. 938 and S. 1194[a]

Proposal	Eligibility	Approximate number
S. 938	Pregnant teenagers younger than 18; mothers younger than 18 at the birth of children now younger than 6; the fathers or guardians	1,046,859 women who gave birth in the previous 5 years before age 18; 2,093,718 including another adult guardian
S. 1194		
Program B, services	Women younger than 25 eligible for AFDC and pregnant or mothers of children younger than 6, without high school diplomas	Up to 630,582 unmarried women without high school diplomas who gave birth in the previous 5 years and are younger than 25
Program A, prevention	Male and female teenagers eligible for AFDC	Up to 2,092,500 children 12-17 in households headed by women with incomes below the poverty level

[a]Estimated for 1984 from birth statistics since 1978 and the 1984 National Survey of Family Growth.

mothers reported, in a variety of settings, results that seem encouraging for infant health, short-term fertility, and return to school.

3. Feasibility concerns. Some of the problems commonly identified in the literature and mentioned by program administrators in a recent 50-state survey include the following:

--lack of public understanding about the size and scope of the problem;

--community ambivalence toward the issue, making the programs unpopular;

--lack of support services to improve programs' accessibility for clients;

--agency rivalries and incompatible procedures;

--the immaturity and limited resources of the teenagers, compared to adult clients;

--unstable funding sources;

--lack of coordination among existing services; and

--insufficient or nonexistent services to coordinate (see U.S. House of Representatives, 1986, item A22 in the bibliography in appendix II).

Programs could increase their chances of success by attending to these factors during the program development stage. Media campaigns educating the public about the extent of teenage pregnancy and its serious consequences could help gain program support. Research and evaluation suggest promising strategies for overcoming some of the other barriers. The case-management approach required in Senator Moynihan's proposal has been associated with the receipt of more service and more types of services. The proximity and accessibility of school health clinics is reported to permit better followup and, thus, improve teenagers' use of contraceptives. Evidence suggests that the clients who receive more rather than less service or continued service show greater success. These individuals may be more motivated than others who terminate their participation early, but participation may nevertheless be hindered by barriers that are frequently beyond their control--lack of transportation and child care and conflicts with work or school, for example. Thoughtful program development could address these factors.

What is not known?

The evaluations of efforts addressing teenage pregnancy leave several critical questions unanswered. In particular, we do not know the

--factors responsible for what works and what does not work,

--availability of resources in the field, and

--additional costs for service delivery.

These gaps in knowledge influence the confidence we can place in projections about the likely effects of the proposed legislation.

1. What factors are responsible? In most instances, the evaluations that we reviewed tested whether the provision of a composite set of services resulted in benefits to the clients. Looking across the projects, we found various combinations of services, different settings, different treatment modalities, and different types of clients. The results for the participants were typically compared to the results for individuals who received "customary" services that were in some way distinct from treatment under a project. Given these test conditions, it is not possible to determine whether all services worked, whether some were more essential than others, or whether some had no value at all.

Further, when "customary" services (private prenatal care, peer and parental counseling, locally available professional

counseling, and so on) are used as the basis for assessing program effectiveness, it is quite possible that both customary and comprehensive services may be effective (relative to providing no services at all). Thus, the prior assessments leave important questions unanswered: Does the program work or not? Does it work, or not work, as a whole or as a result of a single component? Which components are responsible for the positive and which for the negative outcomes? Answers to these questions would require research and evaluation practices that are more sophisticated than appear in the literature.

2. What are the resources in the field? Many federal, state, and local programs can, or could, provide relevant services, but there is little information on who is being served, on what programs are available, and on whether all relevant services are available for coordination. According to a 1986 report by the House Select Committee on Children, Youth, and Families, only some of the 50 states in a 1985 survey could report on how much of their federal block grants and other federal funds were spent on adolescents or how many adolescents were served by programs using these funds (see item A22 in the bibliography). This is partly because of the absence of reporting requirements for expenditures under the social services and maternal and child health programs, the two block grants that constitute the major source of relevant federal funds. However, the state officials who did respond indicated that only a small proportion of these funds went to programs serving teenagers.

More importantly, 26 states in the 1985 survey discussed above responded that existing services in their states were inadequate for addressing the needs of pregnant and parenting teenagers. In the 1979-80 survey of the 153 largest U.S. cities, 90 of the 127 cities that responded indicated that they had special programs for pregnant teenagers, usually sponsored by a local education agency. The most common types of service were counseling (92 cities), special education (84), nutrition (84), family life education (84), and sex education (81). Day care was the most frequently mentioned unmet need of pregnant teenagers and teenage parents (39 cities), and this was followed by job and vocational assistance (31), funds (23), continuing education (22), and parenting education (20).[2]

3. What are the costs of providing services? The available evaluation reports do not provide information sufficient for determining the likely cost of providing comprehensive or coordinated services. Very few project reports described their

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[2]In the original survey, 92 cities were reported as supplying counseling services. We could not reconcile this number with the total number of respondents, which was 90.

program costs, and those that did used quite different calculation procedures. At one extreme, a hospital-based comprehensive program estimated that it cost $775 per mother and child beyond the cost of the pregnancy for making social service referrals and providing weekly family planning and group counseling sessions during the pregnancy and 2-year follow-up period. The $775 included overhead for administration and space but excluded the hospital salaries and other overhead associated with the basic perinatal health services. At the other extreme, Burt and Sonenstein estimated, from their review of several comprehensive service projects, that the 1-year costs of a comprehensive package ranged from $5,426 to $7,664 for pregnant clients and $5,500 to $9,592 for clients entering the program after delivery, depending on when the client began receiving AFDC (see item A3 in the bibliography). These costs included all medical and educational services as well as AFDC benefits and child care.

The varying definitions of cost and their resulting values reflect one of the crucial difficulties in estimating the costs of the programs proposed in the two bills. If many of the intended services are already available through other funding sources, the costs of coordination could be limited to the salary of a case manager and the associated overhead. However, if the intended services do not already exist or are operating at full capacity, additional funds will be required to provide services under the intentions of the bills. Since there is no adequate current information on the services that are now being provided or on whether their programs are being operated at full capacity, it is not possible to estimate the costs of the proposed programs.

S. 1194 proposes that funds for comprehensive service and prevention programs together not exceed 2 percent of the federal share of a state's expenditure for the AFDC program. In fiscal year 1985, the federal share of AFDC expenditures (including administrative expenses) was $8.96 billion for all states; 2 percent of this would represent $179 million for the national program. This is substantially more than the $30 million proposed in S. 938 for service projects--and more than the $15 million currently being spent for the AFL demonstration projects.

However, the states' shares of 2 percent of the federal AFDC payment vary dramatically, according to the 1985 figures. Nevada would receive $116,890, or the smallest amount, but it had 781 births to unmarried teenagers in 1983, resulting in $150 per potential client. In contrast, California would receive the largest amount, $33,075,170, but it had 28,841 such births in 1983, resulting in $1,174 per potential client. These figures are very rough but point to the difficulty of allocating resources equitably for these programs.

Options for future legislation

Since there appears to be an unmet need for services for pregnant teenagers, but much uncertainty about which services are

most effective, we believe that at least two distinct avenues could be pursued in future legislation: (1) expanding services where they are most needed and (2) supporting well-evaluated demonstrations of innovative, flexible, and clearly targeted programs.

Option I: The expansion of services

If the expansion of service programs is essential, then adequate targeting, flexibility, and administrative simplicity are likely factors of their success.

Targeting unmarried women younger than 18 years old seems justified by trends in fertility and by studies suggesting that as mothers, these women are most likely to be poor and their children most at risk. Targeting high-incidence states or the states with few existing resources may also be justified.

Flexibility in terms of what services may be provided seems justified by the lack of evidence on the benefit of specific groups of services and by the relatively high cost of comprehensive services.

Administrative simplicity seems justified by experience with the programs that require extensive coordination across agencies and funding sources and by the concerns that have been reported about programs on teenage pregnancy. Of course, targeting to selected high-risk teenagers will automatically reduce the administrative complexity of a program. For example, targeting services to very young teenagers will require less coordination with agencies responsible for job training, unless enrollment periods are planned for longer terms than provided for in past demonstration projects and fully operational service projects.

Option II: Supporting innovation

Alternatively, federal efforts addressing teenage pregnancy could be focused on a three-pronged approach that encourages innovative models, evaluates them, and disseminates those that have been tested and appear to be promising. While the AFL legislation mandated demonstration and evaluation of innovative approaches, it did not mandate the characteristics of those evaluations and it limited the funds for evaluation to 5 percent of each project grant.

Federal, state, and local reactions to teenage pregnancy have resulted in the development and implementation of quite different approaches. For example, Wisconsin law requires teenagers' parents to assume financial responsibility for the costs of rearing a teenager's infant; some programs in other states encourage greater and more productive communication and understanding between teenagers and their parents regarding sexuality. There is little available evidence on the results of these approaches--they are either too new or not yet

comprehensively evaluated--but on the surface, they appear promising and have received considerable media attention.

Within the past few years, new research studies have pointed to other promising approaches. They include providing vocational assistance to young fathers, providing academic assistance and counseling to teenagers at risk of dropping out of school before pregnancy, and developing a pregnancy-prevention curriculum from models of the influence of beliefs and attitudes on the behaviors conducive to general good health. Some of these approaches, such as providing job training and job-search assistance to fathers, are being implemented under the AFL program, but comprehensive evaluative information is not yet available.

In our brief review, we were unable to examine comprehensively the results of the large body of research on the prevention of teenage pregnancy and the consequences of teenage childbearing. A panel of the National Academy of Sciences is about to complete a study that may help identify promising practices for future innovations.

Sound evaluation is essential. Federal support of innovative programs is certainly not a new concept, but our review of prior evaluations shows that, despite a substantial investment of effort, there is little credible evidence on how well, if at all, these programs work. Deciding whether a program model is promising enough to be considered by other state and local agencies depends on sound evaluative evidence.

Without having detailed information on the specific programs that might be implemented, it is difficult to specify how to conduct evaluations so that technically sound and useful evidence will be produced. However, some general features can be outlined. Given the emphasis on identifying whether programs work, why they work, and for whom they work, the following evaluation considerations should be addressed.

--To determine whether innovative services or other factors are responsible for intended changes in important outcomes, evaluation designs must include a basis for comparison. This should be obtained from analyses of data on comparable individuals who do not receive the innovative services or analyses of time-series data. This does not mean that individuals in comparison groups must be denied services. They could be provided "customary" services that do not include all the features of the innovative program.

--A description of the innovative program and its components, clients' characteristics, and type and amount of services should be detailed enough to allow its implementation in other service settings, if, of course, it is thought effective. The services provided to individuals in the comparison group should also be described in detail.

--Outcome measures should be relevant to the specific objectives of the innovative project; comparable data collected across projects should facilitate between-project comparisons.

--The measurement of intermediate and long-range outcomes should be scheduled to ensure that sufficient time elapses for program outcomes to be demonstrated, if the program is successful and has durable benefits.

--Results should be reported in detail sufficient to allow readers to assess the validity and integrity of the conclusions.

At present, only a few projects have approximated this level of evaluative effort. In the past, credible evidence on other programs has been obtained by providing technical assistance to state and local projects, expanding the resources devoted to evaluation, creating a centralized evaluation mechanism, and combining two or more of these tactics.

Once models have been tested and have demonstrated their promise, federal support for dissemination seems justifiable. That is, support could be provided for the dissemination of research and evaluation findings, the development of material to facilitate the transfer of a project's operational service plan and format to other areas, and on-site consultation by project developers.

In summary, our review suggests the following two options for congressional consideration:

1. If the expansion of service programs is considered essential for dealing with the unmet needs associated with teenage pregnancy, then selected targeting of program resources, flexible program service-delivery packages, and simple program administration are warranted. However, the lack of evidence from past programs means, unfortunately, that decisions about new programs and the expansion of old programs have to be based on common sense, logic, and plausible theory rather than on empirical data and knowledge.

2. The evidence is also consistent with an approach that encourages innovation, evaluation, and the dissemination of tested program models. That is, rather than investing limited resources in the provision of services, resources could be targeted toward learning what works, for whom, and why. The programs that are then found successful could be disseminated for adoption in the other areas of the nation that need them.

OBJECTIVES, SCOPE, AND METHODOLOGY

In a January 9, 1986, letter to the Comptroller General, Senator Chafee initially asked us to identify what implications the available statistical and program information had for structuring new legislation concerning teenage pregnancy among the poor. Specifically, he asked

1. What information exists about the extent of teenage pregnancy among the poor?

2. What types of programs have been initiated to deal with the problem of teenage pregnancy?

3. How effective have these programs been in achieving their objectives? What factors contribute to their success or failure? Are some program arrangements more cost-effective than others?

4. Are there promising programs, administrative arrangements, or financing mechanisms that could be considered in future legislation?

Our preliminary work uncovered a range of current efforts to address teenage pregnancy that was too broad to allow us to comprehensively assess the implications for all possible legislative efforts that might be pursued. It was mutually agreed that we would pursue these questions with regard to two legislative proposals of particular interest to the Senator: his own bill, S. 938, and one proposed by Senator Patrick Moynihan, S. 1194.

Our objectives for this review were to identify, evaluate, and synthesize information relevant to the feasibility of two new program proposals and their likely success in achieving their stated objectives. We refer to our general methodology as an evaluation planning review, a prospective analysis anchored in evaluative concepts of program proposals. To be timely, the method is selective; no attempt is made to be comprehensive by reviewing all possible studies, projects, or research. Using evidence from prior evaluations, statistical information systems, and knowledge of social programs, we assessed the extent to which the legislative proposals are likely to achieve their specified goals. We did not attempt to survey the research on the antecedents and consequences of the problem of teenage pregnancy. Our review for this report had four major steps.

1. We examined the features of the two legislative proposals to determine (a) the nature of the problem the programs are intended to address, (b) the activities and operations of each program package, and (c) the assumptions in the proposals about how their strategies are intended to achieve their policy objectives.

2. We identified the most important published empirical work on our topic and previous efforts to address it.

3. We evaluated findings from published studies of previous efforts, taking research characteristics and data quality into account, in order to determine (a) the evidence on whether the proposed programs are likely to achieve their policy objectives and (b) likely problems of implementation, operation, and management.

4. We compared these findings to the features of the two pieces of proposed legislation. Our application of this methodology is summarized below.

ANALYZE PROPOSALS

We analyzed each bill for its key features in order to select the most appropriate evidence to review. The proposed eligibility criteria for services, service providers, and recipients are depicted in figures 5-7; they established prevention and comprehensive postpregnancy service projects as the dual focus of our review. (We did not attempt to review all projects providing services to pregnant teenagers, because Senator Chafee's interest was in comprehensive service programs.) These criteria also delimited our estimates of the size of the target populations. The policy objectives mentioned in each bill and the general strategies for achieving them are depicted in figures 2-4. The models in these figures define the outcomes of interest to which we restricted our review of the success of prior efforts.

IDENTIFY RESEARCH

We began our search for the most important research with a broadly focused examination of 13 computerized bibliographic files: ABI/Inform and Economic Literature Index (which cover business topics); ASI, NTIS, PAIS, and Social Scisearch (which cover technical reports, mostly governmental); CIS (for congressional documents); and CITN, Dissertation Abstracts, ERIC, Health Planning and Administration, Psych Info, and Sociological Abstracts (which cover reports from the academic community). Our search terms were intentionally broad, because we wanted to find as many relevant documents as possible. Our search of each file was generally restricted to documents published after 1980.

The computerized searches yielded more than 1,100 references, many with abstracts. Two staff members screened these references and selected the items that appeared to be the most relevant to our various topics, classifying them into four main categories: reports of prevention and service projects, summaries of such projects and discussions of general policy, research on the size and scope of the issue, and summaries of research on the antecedents and consequences of the problem of teenage pregnancy.

Next, our staff members reviewed the bibliographies of the research studies and reviews to identify other studies that might have been missed in the computerized searches. The staff members also informally contacted several experts on demography and relevant programs to identify work in progress and elicit nominations of the "most important" research. The experts included Martha Burt, Urban Institute; Josefina Card, Sociometrics Data Archive on Adolescent Pregnancy and Pregnancy Prevention; Cheryl Hayes, National Academy of Sciences; Martha Hill, Panel Study of Income Dynamics; Douglas Kirby, Center for Population Options; William Marsiglio, National Longitudinal Survey; Martin O'Connell, Bureau of the Census; Paul Placek and William Pratt, National Center for Health Statistics; Janet Quint, Manpower Demonstration Research Corporation; and Melvin Zelnick, Johns Hopkins University. We mailed our bibliography to other knowledgeable researchers and policy analysts for their review, including Gordon Berlin, The Ford Foundation; Thomas Brock, Manpower Demonstration Research Corporation; Janet Hardy, John Hopkins University; Lorraine Klerman, Yale University; Karen Pittman, Children's Defense Fund; Freya Sonenstein, Urban Institute; Sharon Stephan, Congressional Research Service; and Gail Zellman, Rand Corporation. Our search yielded a total of 70 documents; our full bibliography is available upon request. In addition, a single publication (see item A23 in the bibliography) provides summary descriptions of 66 demonstration projects funded by the AFL program. Only some of those projects reported interim evaluation data.

Information on the prevalence of teenage pregnancy and childbearing is required in order to ascertain the seriousness of the phenomenon and to estimate the need for services. To ascertain the scope of the problem, we reviewed the published literature and analyzed birth statistics reported by the National Center for Health Statistics and others. To estimate the extent of teenage childbearing among the poor, we investigated the availability of income and fertility information in a number of public and private data bases.

However, no reliable estimates of the number of poor pregnant or parenting teenagers are readily available. Therefore, to ascertain estimates of the populations most in need of services, we examined the available data on the characteristics that previous research has identified as being associated with outcomes for teenage childbearing: age, marital status, and educational attainment.

EVALUATE STUDIES

From those documents describing a prevention or service project, we set aside those that reported no data on any of the outcomes specified in the bills. Then, for each remaining study of a prevention or service project, we rated separately the quality of the information provided on each outcome measure.

Separate ratings by outcome measure were required, because some outcomes were measured with different designs within the same study. We adapted six dimensions from those identified in our paper entitled The Evaluation Synthesis:

1. the similarity of the comparison group to the project's clients,

2. the adequacy of the sample size and the extent of attrition (in studies using longitudinal designs),

3. standardizations of data collection procedures,

4. the appropriateness of the measures that were used to represent the outcome variables,

5. the adequacy of the statistical or other methods used to control for threats to validity (that is, possible influences on observed differences other than program participation), and

6. the presence and appropriateness of the methods used to analyze the statistical significance of observed differences.

All ratings were made from a 3-point scale from "unacceptable," indicating no information on a study method or a method so flawed that the data were probably wrong, to "acceptable," indicating an appropriate method with attempts to minimize endemic problems. All ratings were based on published materials that often did not fully disclose the evaluation procedures.[1]

These dimensional ratings were then combined to judge the overall acceptability of data on each outcome variable for inclusion in our synthesis of results. Outcome data from studies with their own comparison data were judged acceptable overall if they had "acceptable" ratings on the comparability of the comparison data, the extent of sample attrition (if any), and the adequacy of controls for explanations of the observed results other than program participation. Outcome data meeting these criteria are highlighted in the tables and formed the basis for our synthesis of results.

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[1]At the time that we received agency comments, we were offered access to the annual reports of the AFL projects, but, because of time constraints, we were unable to review them for inclusion in this report.

SYNTHESIZE RESULTS

To compare information on prior efforts with the proposals in the two bills, we characterized projects by the types of service and means of service delivery (see tables III.4 through III.8). For categories, we used the characteristics proposed in the most specific legislation, S. 1194. We identified three types of service projects on the basis of the provision of academic and vocational services, as required by Senator Moynihan's proposal, and by the primary setting for service delivery (health facility or school). Prevention projects were characterized by the service components identified in our general review of prevention programs as well as some of the service-delivery characteristics proposed for the comprehensive service program. Prevention projects were too few and too diverse to permit convenient grouping.

To analyze the data available on effectiveness of these programs, we excluded the studies that had no comparison data and grouped the results by more specific types of program (see tables III.2 and III.3). For convenience, we include in these tables the outcome data that we judged acceptable and unacceptable; however, we based our synthesis of results on the data that we judged acceptable.

BIBLIOGRAPHY

This bibliography is arranged in three topics in the following order: general, pregnancy prevention, and postpregnancy services.

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APPENDIX III

TABLES ON PROGRAM FUNDS, RESULTS, AND SERVICES

Table III.1

Sources of Public Funds for Teenage Pregnancy Programs in 1979-80

Source	% of cities[a] (n = 90)
Local	
Education	51
Health	7
Other	9
Total	67
State	
Education	43
Health	7
Welfare	1
Other	8
Total	59
Federal	
Maternal and child health block grant	17
Social services block grant	9
Family planning services	3
Medicaid	2
Education	7
Vocational education	2
Other	7
Total	47

[a]Percentages do not add to 100 because projects could receive funds from more than one source.

Source: Helen Wallace, John Weeks, and Antonio Medina, "Services for and Needs of Pregnant Teenagers in Large Cities of the United States, 1979-80," Public Health Reports, 97:6 (November-December 1982), 583-88.

Table III.2

Results of Prevention Programs

Program type	Comparison[a]	Information	Communication	Postponement	Contraception	Fertility	Education or employment
Sex and birth-control information	Students not enrolled in program (George Mason high school, B12)				In a simulation task, increased choice of prescription methods		
Sex and birth-control information, intensive interpersonal skills training	Students randomly assigned to discussion group (Univ. of Washington, B2, B14)	Increased knowledge of reproduction and birth control	Increased ability to identify problems and solutions; in simulation task, increased eye contact, ability to resist pressure, refusal to risk pregnancy, and requesting partner to share sexual decisions		At 6-month follow-up, increased habitual use of prescription methods		
	Teenage mothers randomly assigned to discussion group (Univ. of Washington II, B15)		In simulation task, increased eye contact, "I" statements, refusals, quick rejoinders, and ability to resist pressure				

Program type	Comparison[a]	Information	Communication	Postponement	Contraception	Fertility	Education or employment
Sex education for a national sample	Urban teenagers 15-19 who had no school course (Zelnick and Kim, B17)			No more likely to be sexually experienced	Black females more likely to have used prescription or other methods		
	Others with no birth-control education					Fewer premaritally pregnant blacks	
	Teenagers 15-16 who had no school course (Furstenberg, B7)		No more or less likely to discuss with parents	Less likely to be sexually experienced (even controlled for socioeconomic status)			
Sex and birth-control information	"Similar" unenrolled students at 14 sites (Kirby, B11)			No difference in incidence or experience	No difference in use of birth control or of more reliable methods 3-5 months after (11 sites)	No difference in pregnancy rate (1 site)	
	Teenage pregnancy rate before program					No difference in teenage pregnancy rate (2 sites)	

Program type	Comparison[a]	Information	Communication	Postponement	Contraception	Fertility	Education or employment
Teenage health clinic, sex and birth-control information and supplies	Teenage birthrates in similar county (West Dallas Youth Clinic, B13)					Sharper decline after program began; much sharper decline for both counties before	
	Other teenagers in the area of same age and race, not attending					Lower birth-rate in 2nd program year	
	Students in same school with no or less exposure to program; similar students in school with no access to clinic; controlled for gender and grade (Johns Hopkins Univ. II, B16)	Increased knowledge of pregnancy risk and birth-control methods		No attitude difference toward child bearing; fewer girls hold ideal age for birth below age for marriage; postponement for some groups with 3 years of program	More likely to attend clinics earlier and to use the pill or other methods	Fewer births and abortions in a year; fewer pregnancies if in program for 20 months or more	
	Teenagers using hospital-based contraceptive clinic (St. Paul high school, B5)				No difference in use of prescription method 1 year after; some differences 2 and 3 years after	Decline of birthrates for students over 3-year period	
	Area birth-rates year before community clinic opened for teenagers (Atlanta, B8)					Decline in birthrates over 4 years	

Program type	Comparison[a]	Information	Communication	Postponement	Contraception	Fertility	Education or employment
Family planning clinics in the aggregate	Counties with smaller increases in teenage enrollment; controlled for demographic differences (Forrest, B6)					Decrease in teenage birthrates	
Sex education, family communication, self-esteem, postponement of sex	Neighboring counties with no program (Columbia, S.C., A23)					"County birthrate declined more sharply"	
Instruction in moral reasoning skills	Other students not enrolled in program (Brigham Young Univ., A23)		"More frequent" parent-child discussions	"Less permissive" toward sex; no difference in increase in reported sexual activity			

[a]The numbers in parentheses at the ends of entries are keyed to the bibliography. For example, "B12" refers to item 12 in section B of the bibliography in appendix II.

Table III.3

Results of Service Programs

Program type	Comparison[a]	Health and delivery	Fertility	Education	Employment	Welfare
Academic and vocational services, personal counseling, case management, health care, and parenting education	Similar teenagers delivering in same hospital receiving only prenatal care (Johns Hopkins Univ., C7)	Reduction in preeclampsia, premature births, and perinatal death; no change in % low birth weight				
	Perinatal patients not continuing (differences not tested)		Pregnancy rate lower after 1 year	Higher graduation rates at 30 months; slightly higher attendance rates	Higher employment during 2 years after delivery	Lower participation at 30 months
	Teenagers in similar cities, no special program (Project Redirection, C12, C13)		Reduced pregnancy at 1st, not 2nd, year; no general change in birth control	No difference in graduation rates at 24 months; attendance rate higher after 1 year, not 2 years Number of semesters of schooling completed higher at 1 and 2 year follow-up	No difference in employment rate; greater work experience in 1st year, marginally greater at 2nd year	
Alternative school: personal counseling and health and parenting education	Pregnant students who remained in regular school (Continuing Education, N.C., C9)	No difference in prematurity		Fewer graduated in program year; no control for age or grade level		

Program type	Comparison[a]	Health and delivery	Fertility	Education	Employment	Welfare
Intensive parenting education and family planning	Young mothers receiving 11 monthly home visits (IS/MT I, C2)		Fewer repeat pregnancies after 3 years			Fewer "totally dependent" after 3 and 5 years
	Mothers attending fewer than 1/2 of 20 sessions (IS/MT II, C2)		Fewer repeat pregnancies after "1-2 years"	More "working or attending school" after "1-2 years"		
School-based parenting and prenatal education, counseling, and referrals	Other students not enrolled in program (SCAN, C5)			Lower dropout rates		
	Teenagers delivering at same hospital, fewer students (Crittenton, C1)	No difference in premature delivery; somewhat lower toxemia rate	Slightly higher pregnancy rate after 1 year	Higher % returned to school after delivery	No difference in employment rates	No difference in participation 18-24 months later
Health facility: mother and infant health care and counseling	Similar teenagers delivering at same hospital, health care only (Teen-Tot, C11)	Higher infant immunization and general health status at 6 months	Reduced unplanned pregnancy after 18 months; increased birth-control at 6 months	Higher % enrolled at 6 months		
	Students of same age and race using school-based clinic, delivery at same hospital (St. Paul High School, C16)	No difference in anemia, toxemia, premature birth rate; reduced % of low Apgar scores at 1 minute, not 5 minutes				

Program type	Comparison[a]	Health and delivery	Fertility	Education	Employment	Welfare
Academic and vocational services, personal counseling, mother and infant health care, parenting education	Other unspecified parenting teenagers (RAPP, East Connecticut, A23)	"Fewer low birth weight babies"		"More likely to complete high school"		
	Other unspecified parenting teenagers, (YHS, A23)	"Fewer low birth weight babies"				
Alternative school: personal counseling and health and parenting education through infant center	Program clients in regular school receiving "less intensive services" (St. Mary, S.C., A23)	"Higher mean birth weight"				
Peer counselor home visits, job search, personal counseling, mother and infant health care, parenting education	Program clients not randomly assigned peer counselors (EAFLP, A23)	"More likely to have post-partum check-up"	"More likely to use birth control since delivery, no difference in knowledge of birth control or reproduction"	"More likely to return to school, no difference in educational aspirations"		
Hospital clinic for teenagers, personal counseling, mother and infant health care, parenting education	WIC clients receiving "traditional, fragmented services" (TMCP, Salt Lake City, A23)	No differences in low birth weight or premature delivery				

[a]The numbers in parentheses at the ends of entries are keyed to the bibliography. For example, "A23" refers to item 23 in section A of the bibliography in appendix II.

Table III.4

Characteristics of Services Provided by Prevention Programs[a]

Characteristic	Teen Awareness Tulsa (B1)	Univ. of Washington (B2, B14)	Health Education for Youth, New York City (B3)	St. Paul MIC, School Clinic (B5)	Atlanta Teen Clinic (B8)	Columbia Presbyterian, New York City (B9)	St. Paul MIC, Sex Education (B10)	West Dallas Youth (B13)
Delivery								
Needs assessment	b	b	b	Yes	b	b	b	b
Case management	b	b	b	b	b	b	b	b
Site	Community center	School	Community agency	Comprehensive school clinic	Health clinic	Hospital clinic	School	Health clinic
Service								
Educational or vocational guidance	b	b	b	b	b	b	b	b
Sex education	Course	Course	Lecture series	Group, individual	Course, outreach	c	Term course	Group, individual
Discussion group for parents	Yes	b	b	b	Outreach	b	b	b
Assertiveness and communication	Lecture	Roleplaying, coaching	Lecture	b	Lecture	b	Exercises	b
Parenting and family life education	Yes	b	b	Yes	b	b	Yes	b
Family planning information or supplies	Information	Information	Information	Prescription	Both	Both	Information	Both
Routine health care	b	b	b	Yes	Yes	Yes	b	Yes
Counseling	b	Yes	b	Yes	Yes	Yes	b	Yes
Type of outcome comparison data	None	Control group	None	Student body over time	Area over time	None	None	Areas over time

[a]The numbers in parentheses in the column headings are keyed to the bibliography. For example, "B1" refers to item 1 in section B of the bibliography in appendix II.
[b]Not mentioned.
[c]Not mentioned but implied.

Characteristic	George Mason High School, Fairfax, Va. (B12)	Univ. of Washington (B15)	Forrest (B6)	Johns Hopkins Univ. (B16)	Zelnick and Kim (B17)	Furstenberg (B7)	Kirby (B11)
Delivery							
Needs assessment	b	b	b	b	b	b	b
Case management	b	b	b	b	b	b	b
Site	School	Alternative school	Family planning clinics	Comprehensive school clinic	School	School	School, other
Service							
Educational or vocational guidance	b	b	b	b	b	b	b
Sex education	Term course	c	c	Group, individual	Yes	Yes	Yes
Discussion group for parents	b	b	b	b	b	b	b
Assertiveness and communication	b	Roleplaying, coaching	b	b	b	b	b
Parenting and family life education	b	b	b	b	b	b	b
Family planning information or supplies	Information	c	Both	Both	Information	Information	c
Routine health care	b	b	b	Yes	b	b	b
Counseling	b	Yes	c	Yes	b	b	b
Type of outcome comparison data	Control group	Control group	County data	Comparison group	National survey	National survey	Comparison groups

Characteristic	Mt. Vernon, New York (A23)	Columbia, S.C. (A23)	Brigham Young Univ. (A23)	Troy, Ala. (A23)	Morristown, Tenn. (A23)
Delivery					
Needs assessment	b	b	b	b	b
Case management	b	b	b	b	b
Site	School	School	School	School	Various
Service					
Educational or vocational guidance	b	b	b	b	b
Sex education	Yes	Yes	c	Yes	Yes
Discussion group for parents	Workshop	b	b	b	Workshop
Assertiveness and communication	b	Yes	Moral reasoning	Values	b
Promotion of self-esteem	Yes	Yes	c	Yes	b
Family communication	Yes	Yes	c	b	b
Postponement of sex	Yes	Yes	c	b	Yes
Parenting and family life education	Yes	b	b	b	Yes
Family planning information or supplies	c	c	c	Yes	Information, referral
Routine health care	b	b	b	b	b
Counseling	b	b	c	b	Yes
Type of outcome comparison data	None	County data	Comparison group	None	None

Table III.5

Characteristics of Services, Including Vocational Services, Provided by Programs[a]

Characteristic	OAPP (C4)	Project Pride, Del. (C6)	CITE, Del. (C6)	Johns Hopkins Univ. (C7)	Project Redirection (C12, C13)	TPFSP, Boston (C15)	TPAP, Oakland (C15)	TIPPS, Seattle (C15)	TAPP, San Francisco (C10)
Delivery									
Individual plan	b	b	b	Medical	Yes	b	b	b	Data tracking
Case management	b	c	b	Yes	Yes	Yes	b	b	Yes
Single staff	b	b	b	b	Community women	b	b	b	Yes
Site	Various	Community	Community	Hospital	Various	Various	School	Health program	Community
Service									
Assistance toward high school degree	Referral	Instruction, general educational development	Instruction	Referral	Yes	Referral	General educational development	Counseling	Referral
Vocational counseling	Readiness	Readiness	Readiness, job club	Referral	Referral	Referral	Readiness, placement	Counseling	Counseling, job search
Family planning information or supplies	Both	b	b	Both	Both	b	b	Both	b
Child care	Yes	Yes	b	Referral	b	Yes	b	b	b
Group support or counseling	Yes	Yes	Yes	Yes	Yes	b	Yes	Yes	Yes
Mother and child health care	Both	b	b	Both	Both	b	b	Both	Referral
Parenting education	Yes	Yes	b	Yes	Yes	b	b	Yes	Yes
Type of outcome comparison data	None, multisite	None	None	Comparison group	Comparison group, multisite	Other evaluation	Other evaluation	Other evaluation	County and state data

[a]The numbers in parentheses in the column headings are keyed to the bibliography. For example, "C4" refers to item 4 in section C of the bibliography in appendix II.

[b]Not mentioned.

[c]Not mentioned but implied.

Table III.6

Characteristics of Services Provided by School-Based Programs[a]

Characteristic	York, Penn. (C8)	Austin, Tex. (C14)	Corpus Christi, Tex. (C15)	Cyesis, Fla. (C15)	St. Louis, Mo. (C15)	SCAN, La. (C5)	Crittenton, Boston (C1)	Continuing Education, N.C. (C9)
Delivery								
Individual plan	Yes	b	b	b	c	b	b	Academic
Case management	b	b	b	Yes	Yes	b	b	Yes
Single staff	b	b	b	b	b	b	b	b
Site	School, special class	Alternative school	Alternative school	School	After-school program	School, special class	Alternative school	Alternative school
Service								
Assistance toward high school degree	At home	Alternative school	Alternative school	School	School	School	Alternative school	Alternative school
Vocational counseling	b	b	b	b	b	b	b	b
Family planning information or supplies	Information	b	Information	b	Information	b	b	Counseling
Child care	b	Yes	b	b	b	b	b	b
Group support or counseling	Referral	c	Yes	Yes	Yes	Yes	Yes	Yes
Mother and child health care	Referral	Referral	Referral	Education only	Education only	Referral	Care	Referral
Parenting education	Yes	c	Yes	Yes	Yes	Yes	Yes	Yes
Type of outcome comparison data	National data	Prior program	Other evaluation	Other evaluation	Other evaluation	Comparison group	Comparison group	Comparison group

[a]The numbers in parentheses in the column headings are keyed to the bibliography. For example, "C8" refers to item 8 in section C of the bibliography in appendix II.
[b]Not mentioned.
[c]Not mentioned but implied.

APPENDIX III

Table III.7

Characteristics of Services Provided by Health-Facility Programs[a]

Characteristic	Single-Parent Program, Utah (C3)	Teen-Tot Clinic, Ala. (C11)	APPSSP, Rochester (C15)	St. Paul MIC, High School (C16)	IS/MT I and II (C2)
Delivery					
Individual plan	[b]	[b]	[b]	Medical	[b]
Case management	[b]	[b]	[b]	[b]	[b]
Single staff	[b]	[b]	[b]	[b]	[b]
Site	University	Hospital	Home visits	Clinic	Hospital
Service					
Assistance toward high school degree	[b]	[b]	[b]	[b]	[b]
Vocational counseling	[b]	[b]	[b]	[b]	[b]
Family planning information or supplies	[b]	Both	[b]	[b]	Information
Child care	[b]	[b]	School	[b]	[b]
Group support or counseling	Yes	Yes	[b]	Yes	Yes
Mother and child health care	[b]	Both	Both	Mother	[b]
Parenting education	Intensive	Yes	Yes	[c]	Intensive
Type of outcome comparison data	Undefined	Comparison group	Other evaluation	Comparison group	Comparison group

[a]The numbers in parentheses in the column headings are keyed to the bibliography. For example, "C3" refers to item 3 in section C of the bibliography in appendix II.
[b]Not mentioned.
[c]Not mentioned but implied.

Table III.8

Characteristics of Services Provided by Adolescent Family Life Programs[a]

Characteristic	RAPP East Conn. (A23)	Guam (A23)	EAFLP, Providence (A23)	TMCP, Salt Lake City (A23)	TAP Aware, Denver (A23)	Camden County, N.J. (A23)	St. Mary HDC, S.C. (A23)	Morristown, Tenn. (A23)	YHS, W. Va. (A23)
Delivery									
Individual plan	b	b	c	b	c	b	b	b	c
Case management	b	b	Yes	b	b	Yes	b	b	Yes
Single staff	Yes	b	Peer counselor	b	Yes	Yes	b	b	b
Site	Community agency, home visits	School, community agency	Home visits, community agency	Hospital, home visits	Community agency, home visits	Hospital, clinics, home visits	Alternative school	Home visits	Health center
Service									
Assistance toward high school degree	Alternative school, general educational development	Alternative instruction	b	b	Special class	b	Alternative school	Counseling	Counseling
Vocational counseling	Yes	b	Job search	b	b	c	b	Yes	Yes
Family planning information or supplies	b	b	b	b	c	c	Counseling	Information	b
Child care	Yes	Yes	b	b	b	b	Yes	Referral	Yes
Group or support counseling	Yes	b	Yes	Yes	b	Yes	Yes	b	Yes
Mother and child health care	Both	Education only	Both	Both	Mother	Mother	Education only	Education only	Both
Parenting education	Yes	Infant center	Yes	Intensive	Yes	Home visits	Infant center	Home visits	Yes
Type of outcome comparison data	Comparison group	Comparison group	Comparison group	Comparison group	Comparison group	National statistics	Comparison group	County data	Comparison group

[a]The numbers in the column headings are keyed to the bibliography. For example, "A23" refers to item 23 in section A of the bibliography in appendix II.
[b]Not mentioned.
[c]Not mentioned but implied.

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